opaque image portions, with the pulse width being changed to 145 .mu.m. Thus, the white opaque portions were made transparent. Namely, the images formed in the recording medium were erased therefrom by changing the condition of the applied laser beam.

Current US Original Classification (1):
503/201

☐ 2. Document ID: US 5948727 A

L4: Entry 2 of 8 File: USPT Sep 7, 1999

DOCUMENT-IDENTIFIER: US 5948727 A
** See image for Certificate of Correction **
TITLE: Reversible thermosensitive recording medium and image forming and erasing method using the same

Brief Summary Text (22):
For the above first to third objects of the present invention, the composite laminated recording layer for use in the above-mentioned reversible thermosensitive recording medium may further comprise a light reflection layer. In this case, it is preferable that the light reflection layer comprise a plurality of separate light reflection layer portions.

Brief Summary Text (24):
In the above-mentioned reversible thermosensitive recording medium, the composite laminated recording layer may further comprise a light reflection layer. In such a case, it is preferable that the light reflection layer comprise a plurality of separate light reflection layer portions.

Drawing Description Text (9):
FIG. 9 is a schematic enlarged illustration of a portion of a sample subjected to measurement of the thermal pressure level difference (Dx) thereof;

Drawing Description Text (13):
FIG. 13(a) is a schematic diagram showing that the recording is carried out in a reversible thermosensitive recording medium of the present invention whose light reflection layer comprises a plurality of separate light reflection layer portions;

Detailed Description Text (18):
A reversible thermosensitive recording medium shown in FIG. 4 is the same as that shown in FIG. 1(b) except that a light reflection layer 4' comprises a plurality of separate light reflection layer portions. Such separate light reflection layer portions can be applied to all the examples shown in FIG. 1 to FIG. 3.

Detailed Description Text (28):
As the material for the thermal-pressure-application head 101, aluminum is employed. The surface roughness (Ry) of the projected portion X of the head 101 shown in FIG. 7(a) which comes in contact with the surface of the test sample is set to 0.8 .mu.m or less in accordance with Japanese Industrial Standards (JIS) B0031-1982 and B0601-1994. The cross-section area A of the projected portion X, which comes in contact with the test sample is 0.225 cm.sup.2.

Detailed Description Text (37):
The measurement conditions for "Surfcoder AY-41" are set, for example, in such a manner that the standard length (L) is 5 mm, and the stylus scanning speed (DS) is 0.1 mm/sec. The measured results are recorded in charts by use of the recorder "RA-60E". The value of the thermal pressure level difference (D.sub.x) in the thermal pressure applied portion is read from the charts in which the measured results are recorded.

Detailed Description Text (39):
In practice, the value of the thermal pressure level difference (D.sub.x) is measured at 5 points, D.sub.1 to D.sub.5, with intervals of 2 mm therebetween in the width direction of a thermal pressure applied portion 101-1, as illustrated in FIG. 9, and the average value is obtained as the average thermal pressure level difference (D.sub.m). The thermal pressure level difference (D) of the light-to-heat converting layer can be obtained from the average thermal pressure level difference (D.sub.m) and the thickness (D.sub.B) of the light-to-heat converting layer in accordance with the following formula:

Detailed Description Text (44):
In the above, the initial thermal pressure level difference (D.sub.I) is the value of the thermal pressure level difference of a sample image display portion measured for the first time after the formation of the sample image display portion. This is not necessarily the value measured immediately after the formation of the sample image display portion.

Detailed Description Text (45):
The thermal pressure level difference changed with time (D.sub.D) is the value of the thermal pressure level difference of a sample image display portion which is prepared at the same time as that of the preparation of the sample image display portion for the measurement of the initial thermal pressure level difference (D.sub.I) thereof and is then allowed to stand at 50.degree. C. for 24 hours.

Detailed Description Text (168):
In the above-mentioned conventional reversible thermosensitive recording medium, however, when the laser beam is applied to the reversible thermosensitive recording medium, the center of the laser-beam-applied portion is heated to a temperature higher than needed because of Gauss distribution of the laser beam. The temperature of such a center of the laser-beam-applied portion becomes much higher than the softening point of the matrix resin for use in the reversible thermosensitive layer. As a result, the resin for use in the reversible thermosensitive layer induces vigorous thermal vibration, and therefore, the molecules of the melted organic low-molecular-weight material pass through the gap between the molecules of the resin. Thus, the resin is separated from the organic low-molecular weight material in the reversible thermosensitive layer, and the particles of the organic low-molecular-weight material begin to aggregate. Finally, the aggregated particles are further caused to aggregate to form aggregated particles with a maximum particle size. When the organic low-molecular-weight material is in such a state, it is almost impossible to perform image formation in the reversible thermosensitive recording medium. This is a so-called deterioration state. It is considered that such a state brings about the lowering of image density when the reversible thermosensitive recording medium is used repeatedly for image formation and image erasure.

Detailed Description Text (207):
When images formed on the reversible thermosensitive recording layer are projected on a screen by use of an overhead projector (OHP), the milky white portions on the reversible thermosensitive recording layer correspond to dark portions on the screen, and the transparent portions on the reversible thermosensitive recording layer correspond to light portions on the screen.

Detailed Description Text (282):
In the present invention, it is preferable to provide the light reflection layer which comprises a plurality of separate light reflection layer portions in order to obtain high image contrast.

Detailed Description Text (283):
FIGS. 13(a) and 13(b) are schematic cross-sectional views of reversible thermosensitive recording media, in explanation of the action of a light reflection layer comprising a plurality of separate light reflection layer portions.

Detailed Description Text (284):
A reversible thermosensitive recording medium as shown in FIG. 13(a) has the same structure as that illustrated in FIG. 4. A laser beam 25 emitted from a laser beam light source 24 is caused to pass through an object lens 26 and focused on a portion in a light-to-heat converting layer 2 of the recording medium. The portion of the light-to-heat converting layer 2 is heated by the focused light, and the generating heat energy is transmitted to one separate light reflection layer portion of a light reflection layer 4', and then, conducted to a reversible thermosensitive recording layer 1. By heating the reversible thermosensitive recording layer 1 in such a procedure, images can be formed therein.

Detailed Description Text (285):
In FIG. 13(a), reference numeral 10 indicates a heated portion which is capable of inducing the change of transparency or color thereof. This heated portion 10 is sufficiently expanded in the thickness direction of the recording layer 1.

Detailed Description Text (286):
In contrast to this, a reversible thermosensitive recording medium as shown in FIG. 13(b) comprises a light reflection layer 4 which is continuously provided on a light-to-heat converting layer 2. When the thermal energy generating in a portion of the light-to-heat converting layer 2 is transmitted through the light reflection layer 4, the thermal energy is horizontally dispersed in the light reflection layer 4. As a result, the reversible thermosensitive recording layer 1 cannot be heated to a sufficient temperature. Consequently, a heated portion 11 of which transparency or color is caused to induce some change is formed only in a part of the reversible thermosensitive recording layer 1 in the thickness direction thereof. Therefore, the image contrast is decreased. *

Detailed Description Text (300):
Such a preheating system can be applied to the previously mentioned reversible thermosensitive recording media capable of assuming two respective different colored states at a first specific temperature and at a second specific temperature. For instance, when a reversible thermosensitive recording medium capable of forming images therein at a second specific temperature and erasing the images therefrom at a first specific temperature is subjected to image forming and erasing operation, the temperature of the heater in the drum 204 may be preset to the above-mentioned first specific temperature, so that the images can be erased simultaneously. Thereafter, by selectively heating the recording medium to the second specific temperature by the application of a laser beam thereto, images can be formed therein. **

Detailed Description Text (350):
The procedure for fabrication of the reversible thermosensitive recording medium No. 4 in Example 4 was repeated except that the light reflection layer used in Example 4 was changed to separate light reflection square portions, each having an area of about 90 .mu.m square, which were vacuum-deposited on the transparent polyester film support by using a mask at intervals of about 10 .mu.m.

Detailed Description Text (387):

Thereafter, the laser beam of 30 mW was applied to the previously formed white opaque image portions, with the pulse width being changed to 145 .mu.m. Thus, the white opaque portions were made transparent. Namely, the images formed in the recording medium were erased therefrom by changing the condition of the applied laser beam.

Current US Original Classification (1):
503/200

Current US Cross Reference Classification (2):
503/201

Current US Cross Reference Classification (3):
503/226

CLAIMS:

12. The reversible thermosensitive recording medium as claimed in claim 7, wherein said light reflection layer comprises a plurality of separate light reflection layer portions.

17. The reversible thermosensitive recording medium as claimed in claim 16, wherein said light reflection layer comprises a plurality of separate light reflection layer portions.

☐ 3. Document ID: US 5880062 A

L4: Entry 3 of 8 File: USPT Mar 9, 1999

DOCUMENT-IDENTIFIER: US 5880062 A
TITLE: Ink jet printing process for desensitizing carbonless paper

Brief Summary Text (11):
U.S. Pat. No. 2,777,780 (Cormack et al.), the disclosure of which is totally incorporated herein by reference, discloses a method of deactivating portions of record material sensitized with minute particles of inorganic adsorbent electron acceptor materials which cause the formation of color in an electron donor aromatic double bond color-reactant compound adsorbed thereon, by reason of an electron donor-acceptor color reaction which converts the compound to a more highly polarized conjugated form, giving it a distinctive color, including the step of applying to selected areas of the sensitized record material, before any of the organic color-reactant is applied, highly polar, non-volatile non-color-forming adsorbate material sufficient to occupy the normally available adsorbent sites on the particles of such areas. This reference discloses the desensitizing of electron acceptor color developer coatings with cationic quaternary ammonium salts, higher aliphatic or aryl amine acetates, high molecular weight primary amines and primary diamines such as dodecyl amine or dodecyl diamine, or substituted oxazolines.

Brief Summary Text (15):
British Patent Application 2,030,932, the disclosure of which is totally incorporated herein by reference, discloses a copying paper having a color

Current US Cross Reference Classification (4):
503/214

CLAIMS:

1. A heat-printable web material comprising a roll of heat-sensitive recording material wound on a core, with only an end portion of said heat-sensitive recording material being selectively heat-developed to provide visible indicia which serve as a warning that the heat-sensitive recording material will soon be exhausted from the roll.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De

☐ 5. Document ID: US 5310611 A

L4: Entry 5 of 8 File: USPT May 10, 1994

DOCUMENT-IDENTIFIER: US 5310611 A
TITLE: Thermoreversible recording material, thermoreversible recording medium and recording method

Brief Summary Text (3):
A thermoreversible recording material has a property that its degree of transparency or transmittance at least with respect to visible light, varies in accordance with its thermal history. It is therefore possible, through the application of, for example, a thermal head or other heating means to such a thermoreversible recording material, to create a difference in the thermal history between a specific portion of the material and another portion, thereby creating a difference in the transmittance between the two portions for purposes of display or recording.

Brief Summary Text (16):
When heat energy from the heat-generating recording elements of a recording device is applied to this recording paper, the colorless die and developer melt and react to produce color. The difference in density between the portions in which color is produced and those in which it is not records characters and graphics in visible form.

Brief Summary Text (18):
To achieve a display of excellent contrast using a display device using a thermoreversible recording material, it is desired to provide a colored plate at the back of the display plate formed of the thermoreversible recording material, and, by selectively making the printed portion of the display plate transparent with a thermal head or other heating means, and leaving the background portions opaque, so that the color of the colored plate is seen only through the printed portion.

Brief Summary Text (21):
There has not been any recording device which performs display in visible form on cards, sheets, or other recording media, that is to say printing, and recovers this printed portion by erasing it in its entirety, thereby enabling new printing on the recovered portion.

Brief Summary Text (23):
It is therefore desirable to develop a reusable recording medium and associated printing device capable of printing on a recording medium in directly visible form, recovering it by erasing the printed portion in its entirety, and printing again onto the recovered portion.

Brief Summary Text (27):
It is a third object of this invention to provide a thermoreversible recording medium in the form of a card, a sheet or the like, which permits recording in visible form, and erasure of the entire recording for recovery, and new printing on the recovered portion; that is to say, which permits repeated printing in visible form on it.

Brief Summary Text (58):
an enhancing layer which has an index of refraction sufficiently different from the index of refraction of the thermoreversible recording/display layer, thereby enhancing the contrast between transparent and opaque portions of the thermoreversible recording/display layer; and

Brief Summary Text (75):
The enhancing layer may be formed between the thermoreversible recording/display layer and the reflecting/absorbing layer. It serves to heighten the contrast between portions of higher and lower transmittances, i.e., transparent and opaque portions of the thermoreversible recording/display layer.

Brief Summary Text (78):
The enhancing layer may be formed of an air space. An air space can be formed by the use of a spacing layer formed between peripheral portions of the substrate and the reflecting/absorbing layer, or another pair of layers which would be adjacent to each other if the spacing layer were not interposed. With such a configuration, an air space separates the above-mentioned pair of layers. The air space having an index of refraction different from the index of refraction of the thermoreversible recording/display layer serves as an enhancing layer.

Brief Summary Text (95):
(1) heating a specific portion of a thermoreversible recording medium having a thermoreversible recording/display layer comprising a matrix material of polyvinyl acetal and a saturated carboxylic acid or derivative thereof; and then

Brief Summary Text (96):
(2) cooling the thermoreversible recording medium at a controlled rate to control the transmittance of the specific portion of the thermoreversible recording medium.

Brief Summary Text (99):
By selectively heating respective portions of the thermoreversible recording medium according to the invention, visual information can be formed. For the selective heating, an array of heating elements, such as a thermal head used for thermal printing can be used.

Detailed Description Text (75):
It is also possible, if required, to print characters or graphics on the peripheral portion of transparent protective layer 14, that is to say the area of the transparent protective layer 14 corresponding to the area of the thermoreversible recording/display layer 13 where normally thermal recording is not made and where therefore the transparent protective layer 14 need not permit observation of the printed recording. It is thus possible, by the use of normal printing in addition to thermally printed recording, to record information that need not be altered or erased.

improve image contrast, it is preferable that the light reflection layer for use in the present invention meet the following conditions:

Current US Original Classification (1):
503/200

Current US Cross Reference Classification (1):
503/208

Current US Cross Reference Classification (2):
503/214

Current US Cross Reference Classification (3):
503/217

Current US Cross Reference Classification (4):
503/226

☐ 6. Document ID: US 5674803 A

L2: Entry 6 of 15 File: USPT Oct 7, 1997

DOCUMENT-IDENTIFIER: US 5674803 A
TITLE: Heat-printable material having thermally printed indicia

Brief Summary Text (12):
The invention further comprises a method for thermally printing a selected portion of a roll of heat-printable web during manufacture of said web comprising the steps of providing a supply roll of the web in an apparatus for slitting the supply roll and for winding the subdivided portions into one or more finished rolls; and selectively heating the heat-printable surface of the web to a temperature sufficient to activate said surface as the moving web passes from the input to the output of the apparatus.

Current US Original Classification (1):
503/206

Current US Cross Reference Classification (4):
503/214

☐ 7. Document ID: US 5310611 A

L2: Entry 7 of 15 File: USPT May 10, 1994

DOCUMENT-IDENTIFIER: US 5310611 A
TITLE: Thermoreversible recording material, thermoreversible recording medium and

recording method

Brief Summary Text (99):
By selectively heating respective portions of the thermoreversible recording medium according to the invention, visual information can be formed. For the selective heating, an array of heating elements, such as a thermal head used for thermal printing can be used.

Current US Cross Reference Classification (4):
503/214

☐ 8. Document ID: US 5260254 A

L2: Entry 8 of 15 File: USPT Nov 9, 1993

DOCUMENT-IDENTIFIER: US 5260254 A
**** See image for Certificate of Correction ****
TITLE: Information memory and display medium

Detailed Description Text (18):
Therefore, by selectively heating the layer, white opaque images can be formed in the layer in a transparent state, and transparent images can be formed in the layer in an opaque state. The images formed in the layer can be erased with application of heat. Such formation and erasion of images in the layer can be reversely repeated as desired.

Current US Original Classification (1):
503/217

Current US Cross Reference Classification (2):
503/201

Current US Cross Reference Classification (3):
503/208

Current US Cross Reference Classification (4):
503/209

Current US Cross Reference Classification (5):
503/225

Current US Cross Reference Classification (6):
503/226

☐ 9. Document ID: US 5258350 A

L2: Entry 9 of 15 File: USPT Nov 2, 1993

an imagewise pattern, thereby causing droplets of the desensitizing material to be ejected in an imagewise pattern onto either (i) at least one surface of one sheet coated with the color former, or (ii) at least one surface of one sheet coated with the color developer.

20. A printing process which comprises (a) incorporating into a thermal ink jet imaging apparatus having nozzles for containing ink a carbonless paper set comprising a first sheet, a second sheet, and optional intermediate sheets situated between the first sheet and second sheet, wherein the first sheet comprises paper coated on one surface with a color former and the second sheet comprises paper coated on one surface with a color developer, and wherein, when the carbonless paper set is assembled, the surface of the first sheet coated with the color former is in contact with the surface of a sheet coated with the color developer and the surface of the second sheet coated with the color developer is in contact with the surface of a sheet coated with the color former; (b) incorporating into the printing apparatus an ink jet ink comprising water and a colorant; (c) selectively heating the ink containing the colorant in the nozzles in an imagewise pattern, thereby causing droplets of the ink containing the colorant to be ejected in an imagewise pattern onto at least one surface of the first sheet; (d) selectively heating the ink containing the colorant in the nozzles in an imagewise pattern, thereby causing droplets of the ink containing the colorant to be ejected in an imagewise pattern onto at least one surface of the second sheet; (e) incorporating into the printing apparatus a desensitizing material comprising water, an organic component, and a desensitizing agent capable of interacting either (i) with the color former so that the color former's subsequent ability to interact with the color developer is reduced, or (ii) with the color developer so that the color developer's subsequent ability to interact with the color former is reduced; and (f) selectively heating the desensitizing material in the nozzles in an imagewise pattern, thereby causing droplets of the ink containing the desensitizing agent to be ejected in an imagewise pattern onto either (i) at least one surface of one sheet coated with the color former, or (ii) at least one surface of one sheet coated with the color developer.

☐ 5. Document ID: US RE35640 E

L2: Entry 5 of 15 File: USPT Oct 21, 1997

DOCUMENT-IDENTIFIER: US RE35640 E
TITLE: Reversible thermosensitive recording material

Detailed Description Text (38):
The degree of whiteness of the milky white opaque area in the recording layer is increased and the image contrast can be improved by the aid of the light reflection layer. However, when the surface of the light reflection layer is just like a mirror surface, the incident light is regularly reflected, so that obtained images my not be clearly seen, depending upon the viewing angle. Furthermore, when the reversible thermosensitive recording material according to the present invention is in the transparent state, it is capable of producing milky white opaque images thereon by selectively heating the surface of the recording material. However, if the employed support is colored in black, the degree of whiteness of the milky white opaque images on the transparent recording layer is undesirably degraded, which causes the deterioration of the image contrast. In the present invention, therefore, to prevent extreme regular reflection of the light and to further

DOCUMENT-IDENTIFIER: US 5258350 A
TITLE: Reversible heat-sensitive recording material and magnetic card using the same

Brief Summary Text (7):
Formation and erasion of an image in such recording materials utilize a reversible change in transparency of the heat-sensitive layer with changing temperature. Illustratively stated, such a recording material is in a transparent state in a temperature range of t.sub.1 -t.sub.1 ' (provided that t.sub.1 <t.sub.1 ') and is in a milky and opaque state at temperatures of t.sub.1 ' or more. For heating the heat-sensitive recording layer, use of a thermal head is preferred particularly where the recording layer has been formed on a magnetic card. That is, recording is, for example, conducted by making the initial state of the recording layer transparent and selectively heating the recording layer with a thermal head to a temperature of t.sub.1 ' or more to allow the heated area to turn milky and opaque, thereby to record a character or design. Alternatively, recording may be conducted by making the initial state of the recording layer milky and opaque and selectively heating the recording layer with a thermal head to a temperature in the range of from t.sub.1 to t.sub.1 ' to allow the heated area to turn transparent. Erasion of the thus-recorded image is accomplished by heating the recording layer with a heated roll, thermal head, or the like to a temperature of from t.sub.1 to t.sub.1 ' in the case of the former recording technique and to a temperature of t.sub.1 ' or more in the case of the latter.

Current US Original Classification (1):
503/204

Current US Cross Reference Classification (3):
503/207

Current US Cross Reference Classification (4):
503/209

Current US Cross Reference Classification (5):
503/214

Current US Cross Reference Classification (6):
503/216

Current US Cross Reference Classification (7):
503/217

Current US Cross Reference Classification (8):
503/225

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw De

☐ 10. Document ID: US 5229350 A

L2: Entry 10 of 15 File: USPT Jul 20, 1993

DOCUMENT-IDENTIFIER: US 5229350 A
TITLE: Reversible heat-senitive recording material and magnetic card using the recording material

Brief Summary Text (8):
Formation and erasion of an image in such recording materials utilize a reversible change in transparency of the heat-sensitive layer by temperature changes. The Figure illustrates the transparency-opaqueness change for a reversible heat-sensitive recording material. The heat-sensitive layer in this recording material is in a transparent state in the temperature range of t.sub.1 --t.sub.1 ' and is in a milky and opaque state at temperatures of t.sub.1 ' or more. For heating the heat-sensitive recording layer, use of a thermal head is preferred particularly in the case where the recording layer has been formed on a magnetic card. That is, recording is, for example, conducted by making the initial state of the recording layer transparent and selectively heating the recording layer with a thermal head at a temperature of t.sub.1 ' or more to allow the heated area to turn milky and opaque, thereby to record a character or design. Alternatively, recording may be conducted by making the initial state of the recording layer milky and opaque and selectively heating the recording layer with a thermal head at a temperature in the range of from t.sub.1 to t.sub.1 ' to allow the heated area to turn transparent. Erasion of the thus-recorded image is accomplished by heating the recording layer with a heated roll, thermal head, or the like at a temperature of t.sub.1 to t.sub.1 ' in the case of the former recording technique and at a temperature of t.sub.1 ' or more in the case of the latter. However, the recording material disclosed in JP-A-55-154198 is defective in that since the temperature range in which the recording layer is transparent (t.sub.1 --t.sub.1 ': transparent-state temperature range) is as narrow as 1.degree. to 2.degree. C., it is almost impossible to control the heating temperature by means of a thermal head and, hence, the latter technique has been utterly unpractical. Although a recording material having a widened transparent-state temperature range has been proposed in JP-A-2-1363, the widened range has a width of only 2.degree. to 3.degree. C. and is hence still unpractical. In addition, the proposed recording material has had a permanence problem, for example, that because the transparent-state temperature range is in a low-temperature region, the recorded character or design disappears according to the ambient temperature. Further, since even a small amount of energy causes opaque state, there are attempts to use acrylic oligomers or various high temperature-boiling solvents (e.g. JP-A-63-104879, JP-A-63-107584, JP-A-63-179789 and JP-A-64-14078).

Detailed Description Text (8):
The present inventors have made further extensive studies concerning impact marks remaining in the area in which a recorded image was erased. In generally employed conventional techniques, recording of a character or design is conducted by selectively heating the heat-sensitive layer in a transparent state at a temperature not lower than t.sub.1 ' thereby to allow the heated area to turn milky and opaque, and erasion of the recorded image is accomplished by heating the heat-sensitive layer at a lower temperature (t.sub.1 --t.sub.1 ') thereby to make the layer transparent. In such a technique, the reversible heat-sensitive layer suffers a deformation due to the heat and pressure applied by the thermal head when recording is conducted at a temperature as high as t.sub.1 ' or more, and erasion of the recorded image at a lower temperature of t.sub.1 to t.sub.1 ' causes the deformation to remain as an impact mark, resulting in an impaired appearance.

Detailed Description Text (9):
In contrast, according to the method of the present invention, recording is conducted by selectively heating the heat-sensitive layer which is in an initial milky and opaque state with a thermal head or by other means to make the heated area transparent, and the recorded image is erased by applying a higher energy, i.e., heating the heat-sensitive layer at a higher temperature with a thermal head, thereby making the heat-sensitive layer milky and opaque. In this method, impact marks are completely concealed and there is completely no erasion miss resulting from unevenness in thermal head temperature, so that recording and erasion can be

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☐ 1. Document ID: US 6448200 B1

L2: Entry 1 of 15 File: USPT Sep 10, 2002

DOCUMENT-IDENTIFIER: US 6448200 B1
TITLE: Image-forming medium coated with microcapsule layer associated with image-formation layer

Detailed Description Text (57):
Of course, a color image is formed on the image-forming medium 10 on the basis of a plurality of overlaying three-primary color dots obtained by selectively heating the electric resistance elements (R.sub.c1 to R.sub.cn ; R.sub.m1 to R.sub.mn ; and R.sub.y1 to R.sub.yn)in accordance with three-primary color digital image-pixel signals. Namely, a certain dot of the color image, formed on the image-forming medium 10, is obtained by a combination of overlaying cyan, magenta and yellow dots produced by corresponding electric resistance elements R.sub.cn, R.sub.mn and R.sub.yn.

Current US Original Classification (1):
503/215

Current US Cross Reference Classification (2):
503/204

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw De

☐ 2. Document ID: US 6172001 B1

L2: Entry 2 of 15 File: USPT Jan 9, 2001

DOCUMENT-IDENTIFIER: US 6172001 B1
**** See image for Certificate of Correction ****
TITLE: Reversible thermosensitive recording medium and image forming and erasing method using the same

Detailed Description Text (330):
Such a preheating system can be applied to the previously mentioned reversible thermosensitive recording media capable of assuming two respective different colored states at a first specific temperature and at a second specific temperature. For instance, when a reversible thermosensitive recording medium capable of forming images therein at a second specific temperature and erasing the

images therefrom at a first specific temperature is subjected to image forming and erasing operation, the temperature of the heater is the drum 204 may be preset to the above-mentioned first specific temperature, so that the images can be erased simultaneously. Thereafter, by selectively heating the recording medium to the second specific temperature by the application of a laser beam thereto, images can be formed therein.

Current US Original Classification (1):
503/201

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw. De

☐ 3. Document ID: US 5948727 A

L2: Entry 3 of 15 File: USPT Sep 7, 1999

DOCUMENT-IDENTIFIER: US 5948727 A
** See image for Certificate of Correction **
TITLE: Reversible thermosensitive recording medium and image forming and erasing method using the same

Detailed Description Text (300):
Such a preheating system can be applied to the previously mentioned reversible thermosensitive recording media capable of assuming two respective different colored states at a first specific temperature and at a second specific temperature. For instance, when a reversible thermosensitive recording medium capable of forming images therein at a second specific temperature and erasing the images therefrom at a first specific temperature is subjected to image forming and erasing operation, the temperature of the heater in the drum 204 may be preset to the above-mentioned first specific temperature, so that the images can be erased simultaneously. Thereafter, by selectively heating the recording medium to the second specific temperature by the application of a laser beam thereto, images can be formed therein.

Current US Original Classification (1):
503/200

Current US Cross Reference Classification (2):
503/201

Current US Cross Reference Classification (3):
503/226

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw. De

☐ 4. Document ID: US 5880062 A

L2: Entry 4 of 15 File: USPT Mar 9, 1999

DOCUMENT-IDENTIFIER: US 5880062 A

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L3	L1 and selectively cooling	0	L3
L2	L1 and selectively heating	15	L2
L1	503/$.ccls. not 503/227.ccls.	2568	L1

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